

REMARKS

Claim 10 is rejected under 35 U.S.C. § 102(b) as being anticipated by Hamamoto et al., US 6,436,582 B1 ("Hamamoto").

The 35 U.S.C. § 102(b) rejection of claim 10 has been rendered moot by the cancellation of claim 10.

Claims 1, 2, 4, 5, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamamoto in view of Cho et al., US 2003/0087155 A1 ("Cho"). Claim 3, 6, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamamoto in view of Cho as applied to claim 1 above, and further in view of Hibara et al., JP 2002-158035, online translation. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamamoto in view of Cho as applied to claim 1 above, and further in view of Ogino et al., US 5,153,082 B1 ("Ogino").

Claim 1 has been amended to recite that the lithium cobalt oxide, which is a main component of the positive active material of the positive electrode of the nonaqueous electrolyte secondary battery of the present invention, contains 0.05 - 2.0 mol. % of a group IVA element and 0.1 - 2.0 mol. % of a group IIA element. This amendment is supported in paragraph [0019] of the specification of the present application.

The combination of Hamamoto and Cho fails to support a case of

prima facie obviousness of the nonaqueous electrolyte secondary battery of the present invention as recited in claim 1 (as originally filed and as amended herein) and the claims dependent thereon. Hibara and Ogino fail to overcome the deficiencies of the combination of Hamamoto and Cho.

Hamamoto discloses a cathode material containing lithium cobalt oxide but, as admitted by the Office on page 4, lines 7-8, of the Office Action, does not disclose that group IVA and IIA elements are contained in the lithium cobalt oxide.

Cho discloses a positive active material comprising a lithiated intercalation compound such as  $\text{LiCoO}_2$  and a coating layer which includes an oxide compound of Zr, Mg, etc., formed on the lithiated intercalation compound (abstract). Cho also discloses that a solid-solution compound included in the coating layer is prepared by reacting the lithiated intercalation compound and the oxide compound by heat treatment (paragraph [0021]). In Example 1 of Cho, solid-solution compounds of  $\text{ZrAlO}_4$  and  $\text{LiCo}_{1-x}\text{Zr}_x\text{Al}_2\text{O}_7$  are formed on the surface of  $\text{LiCoO}_2$  powder (paragraph [0056]). However, the solid-solution compound containing the metals of the oxide is formed only on the surface of the  $\text{LiCoO}_2$ . In contrast, according to the present invention, as required by the recitation recited in claim 1, the group IVA and IIA elements are contained in

the  $\text{LiCoO}_2$ .

Also, Cho discloses that the content of the coating element present in the coating layer preferably ranges from 0.1 to 10 wt% and, more preferably, from 1 to 7 wt% (paragraph [0038]). However, Cho does not disclose the content of the coating element relative to the  $\text{LiCoO}_2$ .

Therefore, the proposed combination of Hamamoto and Cho will not result in a nonaqueous electrolyte secondary battery in which lithium cobalt oxide, which is contained as a main component of the positive active material of the positive electrode, contains 0.05 - 2.0 mol. % of a group IVA element and 0.1 - 2.0 mol. % of a group IIA element as required by the claims of the present application.

Removal of the 35 U.S.C. § 103(a) rejections of the claims is in order and is respectfully requested.

The foregoing is believed to be a complete and proper response to the Office Action dated September 4, 2008, and is believed to place this application in condition for allowance. If, however, minor issues remain that can be resolved by means of a telephone interview and Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number indicated below.

In the event that this paper is not considered to be timely

PATENT APPLN. NO. 10/563,124  
RESPONSE UNDER 37 C.F.R. §1.111

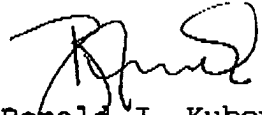
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filed, applicants hereby petition for an appropriate extension of time. The fee for any such extension may be charged to our Deposit Account No. 111833.

In the event any additional fees are required, please also charge our Deposit Account No. 111833.

Respectfully submitted,

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